



```

SSSSSSSS MM MM GGGGGGGG NN NN UU UU MM MM TTTTTTTTTT AAAAAA BBBB BBBB
SSSSSSSS MM MM GGGGGGGG NN NN UU UU MM MM TTTTTTTTTT AAAAAA BBBB BBBB
SS SS MMMM MMMM GG GG NN NN UU UU MMMM MMMM TT TT AA AA BB BB
SS SS MMMM MMMM GG GG NN NN UU UU MMMM MMMM TT TT AA AA BB BB
SS SS MM MM MM GG GG NNNN NN UU UU MM MM TT TT AA AA BB BB
SSSSSS MM MM MM GG GG NN NN UU UU MM MM TT TT AA AA BBBB BBBB
SSSSSS MM MM MM GG GG NN NN UU UU MM MM TT TT AA AA BBBB BBBB
SS SS MM MM MM GG GG GGGGGG NN NN NN NN UU UU MM MM TT TT AAAAAAAAAA BB BB
SS SS MM MM MM GG GG GGGGGG NN NN NN NN UU UU MM MM TT TT AAAAAAAAAA BB BB
SS SS MM MM MM GG GG GG NN NN NN NN UU UU MM MM TT TT AA AA BB BB
SSSSSSSS MM MM GGGGGG NN NN NN UU UU MM MM TT TT AA AA BB BB
SSSSSSSS MM MM GGGGGG NN NN NN UU UU MM MM TT TT AA AA BBBB BBBB
SSSSSSSS MM MM GGGGGG NN NN NN UU UU MM MM TT TT AA AA BBBB BBBB

LL LL IIIIII SSSSSSSS
LL LL IIIIII SSSSSSSS
LL LL II SS
LL LL II SS
LL LL II SS
LL LL II SS
LL LL II SSSSSS
LL LL II SSSSSS
LL LL II SS
LL LL II SS
LL LL II SS
LLLLLLLLLL IIIIII SSSSSSSS
LLLLLLLLLL IIIIII SSSSSSSS

```

```
1 0001 0 MODULE SMG$NUMERIC TABLES( %TITLE 'TPARSE tables for numeric capabilities'
2 0002 0 IDENT = '1-003' ! File: SMGNUMTAB.B32 Edit: PLL1003
3 0003 0 ) =
4 0004 1 BEGIN
5 0005 1
6 0006 1 *****
7 0007 1 *
8 0008 1 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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25 0025 1 *
26 0026 1 *****
27 0027 1
28 0028 1
29 0029 1
30 0030 1 ++
31 0031 1 FACILITY: Screen Management
32 0032 1
33 0033 1 ABSTRACT:
34 0034 1
35 0035 1 This module contains the LIB$TPARSE state tables used to parse
36 0036 1 numeric capabilities in an ascii TERMTABLE.TXT file.
37 0037 1
38 0038 1 ENVIRONMENT: User mode - AST reentrant
39 0039 1
40 0040 1 AUTHOR: P. Levesque CREATION DATE: 30-Jan-1984
41 0041 1
42 0042 1 MODIFIED BY:
43 0043 1
44 0044 1 1-001 - Original. PLL 30-Jan-1984
45 0045 1 1-002 - Allow comments on lines not terminated by comma. PLL 15-Mar-1984
46 0046 1 1-003 - Add frame capability. PLL 29-Mar-1984
47 0047 1 --
48 0048 1
```



```

50      0049 1 XSBTTL 'Declarations'
51      0050 1
52      0051 1 SWITCHES:
53      0052 1
54      0053 1
55      0054 1
56      0055 1 LINKAGES:
57      0056 1
58      0057 1 NONE
59      0058 1
60      0059 1 TABLE OF CONTENTS:
61      0060 1
62      0061 1
63      0062 1 FORWARD ROUTINE
64      0063 1 CONVERT NUMERIC,
65      0064 1 NOT_NUMERIC;
66      0065 1
67      0066 1
68      0067 1 INCLUDE FILES:
69      0068 1
70      0069 1
71      0070 1 REQUIRE 'RTLIN:SMGPROLOG';
72      0148 1
73      0149 1 LIBRARY 'RTLML:SMGTPALIB';
74      0150 1
75      0151 1 LIBRARY 'RTLTPAMAC';
76      0152 1
77      0153 1
78      0154 1 EQUATED SYMBOLS:
79      0155 1
80      0156 1 NONE
81      0157 1
82      0158 1 FIELDS:
83      0159 1
84      0160 1 NONE
85      0161 1
86      0162 1 PSECTS:
87      0163 1
88      0164 1
89      0165 1
90      0166 1 EXTERNAL REFERENCES:
91      0167 1
92      0168 1 EXTERNAL ROUTINE
93      0169 1 OTSSCVT TI L,
94      0170 1 SMG$$BLANKS OFF,
95      0171 1 SMG$$FLUSH NUMERIC,
96      0172 1 SMG$$MISSING END,
97      0173 1 SMG$$NEXT_RECORD,
98      0174 1 SMG$$SAVE_TOKEN STRING,
99      0175 1 SMG$$STORE CAP MASK,
100     0176 1 SMG$$SYNTAX_ERROR;
101     0177 1
102     0178 1 EXTERNAL
103     0179 1 SMG$_ERRAT LIN,
104     0180 1 SMG$_MISTERNAM,
105     0181 1 SMG$_NOTNUMCAP,
106     0182 1 SMG$_SYNERR;

! convert ascii to binary integer
! signal an unknown capability name

! Defines psects, macros, etc.
! Definitions and macros used
! to create TERMTABLE.EXE
! TPARSE library of macros

! convert ascii digits to integer
! turn off flag to process blanks
! flush numeric value to data area
! signal error
! get next record from TERMTABLE.TXT
! store ptr & count for token
! remember capability number
! signal syntax error

! error in line n at or near 'x'
! missing terminal name
! not a numeric capability
! syntax error

```

SMG\$NUMERIC\_TAB TPARSE tables for numeric capabilities  
1-003 Declarations

6 9  
16-Sep-1984 01:08:25  
14-Sep-1984 13:09:57

VAX-11 Bliss-32 V4.0-742  
[SMGRTL.SRC]SMGNUMTAB.B32;1

Page 3  
(2)

:	107	0183	1	
:	108	0184	1	EXTERNAL
:	109	0185	1	
:	110	0186	1	SMG\$MASK_ADR,
:	111	0187	1	SMG\$CURRENT_LINE;
:	112	0188	1	:
:	113	0189	1	OWN STORAGE:
:	114	0190	1	:
:	115	0191	1	NONE

: used by TPARSE action routines  
: current input line - maintained  
: for error messages

```
117 0192 1 %SBTTL 'SMG$$NUMERIC_TABLES - TPARSE tables for numeric capabilities'
118 0193 1 |++
119 0194 1 | FUNCTIONAL DESCRIPTION:
120 0195 1 |
121 0196 1 |     The following are the state tables used to parse numeric
122 0197 1 |     capabilities in a terminal definition.
123 0198 1 |
124 0199 1 | --
125 0200 1 |
126 0201 1 $INIT_STATE (SMG$$A_NUMERIC_STATES, SMG$$A_NUMERIC_KEYWDS);
127 0202 1 | set up state tables, key words
128 0203 1 |
129 0204 1 | +
130 0205 1 | Begin scanning loop. Look for the start of a capability.
131 0206 1 | Skip over blanks and comments.
132 0207 1 | -
133 0208 1 |
134 P 0209 1 $STATE (BEGIN_SCAN,
135 P 0210 1 | ((END_OF_LINE), BEGIN_SCAN, SMG$$NEXT_RECORD),
136 P 0211 1 | ('!', BEGIN_SCAN, SMG$$NEXT_RECORD),
137 P 0212 1 | ((CAPABILITY), BEGIN_SCAN, SMG$$BLANKS_OFF),
138 P 0213 1 | (TPAS_LAMBDA, TPAS_EXIT)
139 0214 1 | );
140 0215 1 |
141 0216 1 | +
142 0217 1 | This state indicates the end of a line. A comment also signals the
143 0218 1 | end of a line.
144 0219 1 | -
145 0220 1 |
146 P 0221 1 $STATE (END_OF_LINE,
147 P 0222 1 | (TPAS_EOS, TPAS_EXIT),
148 P 0223 1 | ('!', TPAS_EXIT),
149 P 0224 1 | (TPAS_LAMBDA, TPAS_FAIL)
150 0225 1 | );
151 0226 1 |
152 0227 1 | +
153 0228 1 | Find the capability name and determine if it's one that we expect.
154 0229 1 | The string up to the '=' sign should be the capability name.
155 0230 1 | -
156 0231 1 |
157 P 0232 1 $STATE (CAPABILITY,
158 P 0233 1 | ((NUMERIC_NAME), EQUALS_NUMERIC, SMG$$BLANKS_OFF),
159 P 0234 1 | ('END', TPAS_FAIL),
160 P 0235 1 | ('BOOLEAN', TPAS_FAIL),
161 P 0236 1 | ('NUMERIC', BEGIN_SCAN),
162 P 0237 1 | ('STRING', TPAS_FAIL),
163 P 0238 1 | ('REQUIRE', TPAS_FAIL, SMG$$MISSING_END),
164 P 0239 1 | ('NAME', TPAS_FAIL, SMG$$MISSING_END),
165 P 0240 1 | (TPAS_SYMBOL, , NOT_NUMERIC)
166 0241 1 | );
167 0242 1 |
168 0243 1 | +
169 0244 1 | Check for a numeric name here.
170 0245 1 | -
171 0246 1 |
172 P 0247 1 $STATE (NUMERIC_NAME,
173 P 0248 1 | ('COLUMNS', TPAS_EXIT, , SMG$K_COLUMNS, SMG$$MASK_ADR),
```



```

174 P 0249 1 ('CR FILL', TPAS_EXIT, SMG$K CR FILL, SMG$$MASK_ADR),
175 P 0250 1 ('FRAME', TPAS_EXIT, SMG$K FRAME, SMG$$MASK_ADR),
176 P 0251 1 ('LF FILL', TPAS_EXIT, SMG$K LF FILL, SMG$$MASK_ADR),
177 P 0252 1 ('NUMBER_FN_KEYS', TPAS_EXIT, SMG$K NUMBER_FN_KEYS, SMG$$MASK_ADR),
178 P 0253 1 ('ROWS', TPAS_EXIT, SMG$K ROWS, SMG$$MASK_ADR),
179 P 0254 1 ('WIDE_SCREEN_COLUMNS', TPAS_EXIT, SMG$K WIDE_SCREEN_COLUMNS, SMG$$MASK_ADR),
180 P 0255 1 ('PRIVATE_NUM_1', TPAS_EXIT, SMG$K PRIVATE_NUM_1, SMG$$MASK_ADR),
181 P 0256 1 ('PRIVATE_NUM_2', TPAS_EXIT, SMG$K PRIVATE_NUM_2, SMG$$MASK_ADR),
182 P 0257 1 ('PRIVATE_NUM_3', TPAS_EXIT, SMG$K PRIVATE_NUM_3, SMG$$MASK_ADR),
183 P 0258 1 ('PRIVATE_NUM_4', TPAS_EXIT, SMG$K PRIVATE_NUM_4, SMG$$MASK_ADR),
184 P 0259 1 ('PRIVATE_NUM_5', TPAS_EXIT, SMG$K PRIVATE_NUM_5, SMG$$MASK_ADR),
185 P 0260 1 ('PRIVATE_NUM_6', TPAS_EXIT, SMG$K PRIVATE_NUM_6, SMG$$MASK_ADR),
186 P 0261 1 ('PRIVATE_NUM_7', TPAS_EXIT, SMG$K PRIVATE_NUM_7, SMG$$MASK_ADR),
187 P 0262 1 ('PRIVATE_NUM_8', TPAS_EXIT, SMG$K PRIVATE_NUM_8, SMG$$MASK_ADR),
188 P 0263 1 ('PRIVATE_NUM_9', TPAS_EXIT, SMG$K PRIVATE_NUM_9, SMG$$MASK_ADR),
189 P 0264 1 ('PRIVATE_NUM_10', TPAS_EXIT, SMG$K PRIVATE_NUM_10, SMG$$MASK_ADR),
190 P 0265 1 (TPAS_LAMBDA, TPAS_FAIL)
191 0266 1 );
192 0267 1
193 0268 1 !+
194 0269 1 ! Skip over intervening equals sign.
195 0270 1 !-
196 0271 1
197 P 0272 1 $STATE (EQUALS_NUMERIC,
198 P 0273 1 ((END_OF_LINE), EQUALS_NUMERIC, SMG$$NEXT_RECORD),
199 P 0274 1 ('=' NUMERIC_CAP_VALUE, SMG$$STORE_CAP_MASK),
200 P 0275 1 (TPAS_SYMBOL, SMG$$SYNTAX_ERROR),
201 P 0276 1 (TPAS_ANY, SMG$$SYNTAX_ERROR)
202 0277 1 );
203 0278 1
204 0279 1 !+
205 0280 1 ! Get the numeric capability value.
206 0281 1 !-
207 0282 1
208 P 0283 1 $STATE (NUMERIC_CAP_VALUE,
209 P 0284 1 ((END_OF_LINE), NUMERIC_CAP_VALUE, SMG$$NEXT_RECORD),
210 P 0285 1 ((NUMERIC_CAP), BEGIN_SCAN),
211 P 0286 1 (TPAS_SYMBOL, SMG$$SYNTAX_ERROR),
212 P 0287 1 (TPAS_ANY, SMG$$SYNTAX_ERROR)
213 0288 1 );
214 0289 1
215 0290 1 !+
216 0291 1 ! This is a numeric capability. Convert ascii to binary and store it
217 0292 1 ! in TERMTABLE.EXE.
218 0293 1 !-
219 0294 1
220 P 0295 1 $STATE (NUMERIC_CAP,
221 P 0296 1 (TPAS_DIGIT, NUMERIC_CAP, SMG$$SAVE_TOKEN_STRING),
222 P 0297 1 ((COMMA), TPAS_EXIT, CONVERT_NUMERIC),
223 P 0298 1 ((END_OF_LINE), NEW_RECORD, CONVERT_NUMERIC),
224 P 0299 1 (TPAS_ANY, SMG$$SYNTAX_ERROR)
225 0300 1 );
226 0301 1
227 P 0302 1 $STATE (COMMA,
228 P 0303 1 ('', TPAS_EXIT, SMG$$BLANKS_OFF),
229 P 0304 1 (TPAS_BLANK, COMMA, SMG$$BLANKS_OFF),
230 P 0305 1 (TPAS_LAMBDA, TPAS_FAIL)

```

SMG\$NUMERIC\_TAB TPARSE tables for numeric capabilities  
1-003 SMG\$NUMERIC\_TABLES - TPARSE tables for numeric

J 9  
16-Sep-1984 01:08:25  
14-Sep-1984 13:09:57

VAX-11 Bliss-32 V4.0-742  
[SMGRTL.SRC]SMGNUMTAB.B32;1

Page 6  
(3)

```
: 231      0306 1      );  
: 232      0307 1  
: 233      P 0308 1 $STATE (NEW_RECORD,  
: 234      P 0309 1 (TPAS_LAMBDA, TPAS_EXIT, SMG$NEXT_RECORD)  
: 235      0310 1      );  
: 236      0311 1
```



```
238 0312 1 %SBTTL 'CONVERT_NUMERIC - Convert ascii to binary integer'
239 0313 1 ROUTINE CONVERT_NUMERIC =
240 0314 1
241 0315 1 ++
242 0316 1 FUNCTIONAL DESCRIPTION:
243 0317 1
244 0318 1     Converts an ascii string to binary integer. The integer is
245 0319 1     stored in the location of the current capability data in
246 0320 1     TERMTABLE.EXE.
247 0321 1
248 0322 1 CALLING SEQUENCE:
249 0323 1
250 0324 1     status = CONVERT_NUMERIC ()
251 0325 1
252 0326 1 FORMAL PARAMETERS:
253 0327 1
254 0328 1     NONE
255 0329 1
256 0330 1 IMPLICIT INPUTS:
257 0331 1
258 0332 1     AP     Points to TPARSE parameter block
259 0333 1
260 0334 1 IMPLICIT OUTPUTS:
261 0335 1
262 0336 1     NONE
263 0337 1
264 0338 1 COMPLETION STATUS:
265 0339 1
266 0340 1     SS$_NORMAL
267 0341 1
268 0342 1 SIDE EFFECTS:
269 0343 1
270 0344 1 --
271 0345 1
272 0346 2 BEGIN
273 0347 2
274 0348 2     BUILTIN
275 0349 2     CALLG,
276 0350 2     AP;
277 0351 2     MAP
278 0352 2     AP : REF BLOCK [,BYTE];
279 0353 2
280 0354 2 ++
281 0355 2 If we didn't find any digits, then there is nothing to convert.
282 0356 2 --
283 0357 2
284 0358 2     IF .AP [PARAM_L_SAVED_TOKENCNT] EQL 0
285 0359 2     THEN
286 0360 2     RETURN (SS$_NORMAL);
287 0361 2
288 0362 2 ++
289 0363 2 If this is not the NAME capability and we have no pointers set up
290 0364 2 for the terminal definition, then NAME was not the first capability
291 0365 2 in the definition. Complain.
292 0366 2 --
293 0367 2
294 0368 3 BEGIN
```

```

295 0369 3 BIND
296 0370 CAP_PTRS = .AP [PARAM_L_CUR_TERM_DEF] : VECTOR [,WORD];
297 0371
298 0372 IF CAP_PTRS EQL 0
299 0373 THEN
300 0374 SIGNAL_STOP (SMG$_MISTERNAM);
301 0375
302 0376
303 0377 + Move the capability data. The byte count is in the first byte and
304 0378 the actual data follows.
305 0379
306 0380 - We must convert the ascii digits to binary.
307 0381
308 0382
309 0383 BEGIN
310 0384 LOCAL
311 0385 STATUS,
312 0386 INPUT_STRING_DESC : BLOCK [8,BYTE];
313 0387
314 0388 INPUT_STRING_DESC [DSC$B_DTYPE] = DSC$K_DTYPE_T;
315 0389 INPUT_STRING_DESC [DSC$B_CLASS] = DSC$K_CLASS_S;
316 0390 INPUT_STRING_DESC [DSC$W_LENGTH] = .AP [PARAM_L_SAVED_TOKENCNT];
317 0391 INPUT_STRING_DESC [DSC$A_POINTER] = .AP [PARAM_L_SAVED_TOKENSTR];
318 0392
319 0393 IF NOT (STATUS = OT$SCVT_TI_L (INPUT_STRING_DESC, AP [TPASL_NUMBER]))
320 0394 THEN
321 0395 SIGNAL_STOP (SMG$ ERRAT LIN,
322 0396 3, .SMG$$CURRENT LINE,
323 0397 .AP [PARAM_L_SAVED_TOKENCNT],
324 0398 .AP [PARAM_L_SAVED_TOKENSTR],
325 0399 .STATUS);
326 0400
327 0401 CALLG (.AP, SMG$$FLUSH_NUMERIC); ! move value to data area
328 0402
329 0403 END;
330 0404
331 0405
332 0406 END; ! end of BINDs scope
333 0407
334 0408 + Re-initialize capability string.
335 0409 -
336 0410
337 0411
338 0412 AP [PARAM_L_SAVED_TOKENCNT] = 0;
339 0413 AP [PARAM_L_SAVED_TOKENSTR] = 0;
340 0414
341 0415 RETURN (SS$_NORMAL);
342 0416
343 0417 1 END; ! end of routine CONVERT_NUMERIC

```

```

.TITLE SMG$NUMERIC_TABLES TPARSE tables for numeric ca
.IDENT \1-003\ pabilities
.PSECT _LIB$KEY1$,NOWRT, SHR, PIC,1

```

							00000	:TPASKEYSTO	
							U.29:	.BLKB	0
		44	4E	45			00000	:TPASKEYST	
						FF	00003	U.31:	.ASCII
							00004	.BYTE	-1
								:TPASKEYSTO	
							U.34:	.BLKB	0
4E	41	45	4C	4F	4F	42	00004	:TPASKEYST	
							U.36:	.ASCII	\BOOLEAN\
						FF	0000B	.BYTE	-1
							0000C	:TPASKEYSTO	
							U.39:	.BLKB	0
43	49	52	45	4D	55	4E	0000C	:TPASKEYST	
							U.41:	.ASCII	\NUMERIC\
						FF	00013	.BYTE	-1
							00014	:TPASKEYSTO	
							U.44:	.BLKB	0
		47	4E	49	52	54	00014	:TPASKEYST	
							U.46:	.ASCII	\STRING\
						FF	0001A	.BYTE	-1
							0001B	:TPASKEYSTO	
							U.49:	.BLKB	0
45	52	49	55	51	45	52	0001B	:TPASKEYST	
							U.51:	.ASCII	\REQUIRE\
						FF	00022	.BYTE	-1
							00023	:TPASKEYSTO	
							U.55:	.BLKB	0
			45	4D	41	4E	00023	:TPASKEYST	
							U.57:	.ASCII	\NAME\
						FF	00027	.BYTE	-1
						FF	00028	:TPASKEYFILL	
							U.63:	.BYTE	-1
							00029	:TPASKEYSTO	
							U.64:	.BLKB	0
53	4E	4D	55	4C	4F	43	00029	:TPASKEYST	
							U.66:	.ASCII	\COLUMNS\
						FF	00030	.BYTE	-1
							00031	:TPASKEYSTO	
							U.71:	.BLKB	0
4C	4C	49	46	5F	52	43	00031	:TPASKEYST	
							U.73:	.ASCII	\CR_FILL\
						FF	00038	.BYTE	-1
							00039	:TPASKEYSTO	
							U.78:	.BLKB	0
			45	4D	41	52	00039	:TPASKEYST	
							U.80:	.ASCII	\FRAME\
						FF	0003E	.BYTE	-1
							0003F	:TPASKEYSTO	
							U.85:	.BLKB	0
4C	4C	49	46	5F	46	4C	0003F	:TPASKEYST	
							U.87:	.ASCII	\LF_FILL\
						FF	00046	.BYTE	-1
							00047	:TPASKEYSTO	
							U.92:	.BLKB	0
5F	52	45	42	4D	55	4E	00047	:TPASKEYST	
							U.94:	.ASCII	\NUMBER_FN_KEYS\
						FF	00055	.BYTE	-1





```

30 31 5F 4D 55 4E 5F 45 54 41 56 49 52 50 000ED U.176: .BLKB 0
:TPASKEYST
U.178: .ASCII \PRIVATE_NUM_10\
FF 000FB :TPASKEYST .BYTE -1
FF 000FC :TPASKEYST .BYTE -1
:TPASKEYST .PSECT _LIB$STATES,NOWRT, SHR, PIC,1

00000 SMG$A_NUMERIC_STATES::
00000 .BLKB 0
00000 BEGIN_SCAN:
99F8 00000 :TPATYPE .BLKB 0
U.2: .WORD -26120
0000* 00002 :TPASUBEXP U.4: .WORD <<U.3-U.4>-2>
00000000* 00004 :TPASACTION U.5: .LONG <<SMG$$NEXT_RECORD-U.5>-4>
0000* 00008 :TPASTARGET U.6: .WORD <<BEGIN_SCAN-U.6>-2>
9021 0000A :TPATYPE U.7: .WORD -28639
00000000* 0000C :TPASACTION U.8: .LONG <<SMG$$NEXT_RECORD-U.8>-4>
0000* 00010 :TPASTARGET U.9: .WORD <<BEGIN_SCAN-U.9>-2>
99F8 00012 :TPATYPE U.10: .WORD -26120
0000* 00014 :TPASUBEXP U.12: .WORD <<U.11-U.12>-2>
00000000* 00016 :TPASACTION U.13: .LONG <<SMG$$BLANKS_OFF-U.13>-4>
0000* 0001A :TPASTARGET U.14: .WORD <<BEGIN_SCAN-U.14>-2>
15F6 0001C :TPATYPE U.15: .WORD 5622
FFFF 0001E :TPASTARGET U.16: .WORD -1
00020 :END_OF_LINE U.3: .BLKB 0
11F7 00020 :TPATYPE U.17: .WORD 4599
FFFF 00022 :TPASTARGET U.18: .WORD -1
1021 00024 :TPATYPE U.19: .WORD 4129
FFFF 00026 :TPASTARGET U.20: .WORD -1
15F6 00028 :TPATYPE U.21: .WORD 5622
FFFE 0002A :TPASTARGET U.22: .WORD -2
0002C :CAPABILITY U.11: .BLKB 0
99F8 0002C :TPATYPE U.23: .WORD -26120

```

0000*	0002E	:TPASSUBEXP			
		U.25:	WORD	<<U.24-U.25>-2>	:
00000000*	00030	:TPASACTION			:
		U.26:	LONG	<<SMG\$\$BLANKS_OFF-U.26>-4>	:
0000*	00034	:TPASTARGET			:
		U.28:	WORD	<<U.27-U.28>-2>	:
1100	00036	:TPASTYPE			:
		U.32:	WORD	4352	:
FFFE	00038	:TPASTARGET			:
		U.33:	WORD	-2	:
1101	0003A	:TPASTYPE			:
		U.37:	WORD	4353	:
FFFE	0003C	:TPASTARGET			:
		U.38:	WORD	-2	:
1102	0003E	:TPASTYPE			:
		U.42:	WORD	4354	:
0000*	00040	:TPASTARGET			:
		U.43:	WORD	<<BEGIN_SCAN-U.43>-2>	:
1103	00042	:TPASTYPE			:
		U.47:	WORD	4355	:
FFFE	00044	:TPASTARGET			:
		U.48:	WORD	-2	:
9104	00046	:TPASTYPE			:
		U.52:	WORD	-28412	:
00000000*	00048	:TPASACTION			:
		U.53:	LONG	<<SMG\$\$MISSING_END-U.53>-4>	:
FFFE	0004C	:TPASTARGET			:
		U.54:	WORD	-2	:
9105	0004E	:TPASTYPE			:
		U.58:	WORD	-28411	:
00000000*	00050	:TPASACTION			:
		U.59:	LONG	<<SMG\$\$MISSING_END-U.59>-4>	:
FFFE	00054	:TPASTARGET			:
		U.60:	WORD	-2	:
85F1	00056	:TPASTYPE			:
		U.61:	WORD	-31247	:
00000000V	00058	:TPASACTION			:
		U.62:	LONG	<<NOT_NUMERIC-U.62>-4>	:
	0005C	:NUMERIC_NAME			:
		U.24:	BLKB	0	:
7106	0005C	:TPASTYPE			:
		U.67:	WORD	28934	:
00000000*	0005E	:TPASADDR			:
		U.68:	LONG	<<SMG\$\$MASK_ADR-U.68>-4>	:
000000DD	00062	:TPASMASK			:
		U.69:	LONG	221	:
FFFF	00066	:TPASTARGET			:
		U.70:	WORD	-1	:
7107	00068	:TPASTYPE			:
		U.74:	WORD	28935	:
00000000*	0006A	:TPASADDR			:
		U.75:	LONG	<<SMG\$\$MASK_ADR-U.75>-4>	:
000000DE	0006E	:TPASMASK			:
		U.76:	LONG	222	:
FFFF	00072	:TPASTARGET			:
		U.77:	WORD	-1	:
7108	00074	:TPASTYPE			:



00000000*	00076	U.81: .WORD	28936	:
		:TPASADDR		:
000000DF	0007A	U.82: .LONG	<<SMG\$MASK_ADR-U.82>-4>	:
		:TPASMASK		:
FFFF	0007E	U.83: .LONG	223	:
		:TPASTARGET		:
7109	00080	U.84: .WORD	-1	:
		:TPASTYPE		:
00000000*	00082	U.88: .WORD	28937	:
		:TPASADDR		:
000000E0	00086	U.89: .LONG	<<SMG\$MASK_ADR-U.89>-4>	:
		:TPASMASK		:
FFFF	0008A	U.90: .LONG	224	:
		:TPASTARGET		:
710A	0008C	U.91: .WORD	-1	:
		:TPASTYPE		:
00000000*	0008E	U.95: .WORD	28938	:
		:TPASADDR		:
000000E1	00092	U.96: .LONG	<<SMG\$MASK_ADR-U.96>-4>	:
		:TPASMASK		:
FFFF	00096	U.97: .LONG	225	:
		:TPASTARGET		:
710B	00098	U.98: .WORD	-1	:
		:TPASTYPE		:
00000000*	0009A	U.102: .WORD	28939	:
		:TPASADDR		:
000000E2	0009E	U.103: .LONG	<<SMG\$MASK_ADR-U.103>-4>	:
		:TPASMASK		:
FFFF	000A2	U.104: .LONG	226	:
		:TPASTARGET		:
710C	000A4	U.105: .WORD	-1	:
		:TPASTYPE		:
00000000*	000A6	U.109: .WORD	28940	:
		:TPASADDR		:
000000E4	000AA	U.110: .LONG	<<SMG\$MASK_ADR-U.110>-4>	:
		:TPASMASK		:
FFFF	000AE	U.111: .LONG	228	:
		:TPASTARGET		:
710D	000B0	U.112: .WORD	-1	:
		:TPASTYPE		:
00000000*	000B2	U.116: .WORD	28941	:
		:TPASADDR		:
000001AF	000B6	U.117: .LONG	<<SMG\$MASK_ADR-U.117>-4>	:
		:TPASMASK		:
FFFF	000BA	U.118: .LONG	431	:
		:TPASTARGET		:
710E	000BC	U.119: .WORD	-1	:
		:TPASTYPE		:
00000000*	000BE	U.123: .WORD	28942	:
		:TPASADDR		:
000001B0	000C2	U.124: .LONG	<<SMG\$MASK_ADR-U.124>-4>	:
		:TPASMASK		:
FFFF	000C6	U.125: .LONG	432	:
		:TPASTARGET		:
710F	000C8	U.126: .WORD	-1	:
		:TPASTYPE		:
		U.130: .WORD	28943	:

00000000*	000CA	:TPASADDR			
		U.131:	LONG	<<SMG\$SMASK_ADR-U.131>-4>	:
000001B1	000CE	:TPASMASK			:
		U.132:	LONG	433	:
FFFF	000D2	:TPASTARGET			:
		U.133:	WORD	-1	:
7110	000D4	:TPASTYPE			:
		U.137:	WORD	28944	:
00000000*	000D6	:TPASADDR			:
		U.138:	LONG	<<SMG\$SMASK_ADR-U.138>-4>	:
000001B2	000DA	:TPASMASK			:
		U.139:	LONG	434	:
FFFF	000DE	:TPASTARGET			:
		U.140:	WORD	-1	:
7111	000E0	:TPASTYPE			:
		U.144:	WORD	28945	:
00000000*	000E2	:TPASADDR			:
		U.145:	LONG	<<SMG\$SMASK_ADR-U.145>-4>	:
000001B3	000E6	:TPASMASK			:
		U.146:	LONG	435	:
FFFF	000EA	:TPASTARGET			:
		U.147:	WORD	-1	:
7112	000EC	:TPASTYPE			:
		U.151:	WORD	28946	:
00000000*	000EE	:TPASADDR			:
		U.152:	LONG	<<SMG\$SMASK_ADR-U.152>-4>	:
000001B4	000F2	:TPASMASK			:
		U.153:	LONG	436	:
FFFF	000F6	:TPASTARGET			:
		U.154:	WORD	-1	:
7113	000F8	:TPASTYPE			:
		U.158:	WORD	28947	:
00000000*	000FA	:TPASADDR			:
		U.159:	LONG	<<SMG\$SMASK_ADR-U.159>-4>	:
000001B5	000FE	:TPASMASK			:
		U.160:	LONG	437	:
FFFF	00102	:TPASTARGET			:
		U.161:	WORD	-1	:
7114	00104	:TPASTYPE			:
		U.165:	WORD	28948	:
00000000*	00106	:TPASADDR			:
		U.166:	LONG	<<SMG\$SMASK_ADR-U.166>-4>	:
000001B6	0010A	:TPASMASK			:
		U.167:	LONG	438	:
FFFF	0010E	:TPASTARGET			:
		U.168:	WORD	-1	:
7115	00110	:TPASTYPE			:
		U.172:	WORD	28949	:
00000000*	00112	:TPASADDR			:
		U.173:	LONG	<<SMG\$SMASK_ADR-U.173>-4>	:
000001B7	00116	:TPASMASK			:
		U.174:	LONG	439	:
FFFF	0011A	:TPASTARGET			:
		U.175:	WORD	-1	:
7116	0011C	:TPASTYPE			:
		U.179:	WORD	28950	:
00000000*	0011E	:TPASADDR			:

```

000001B8 00122 U.180: .LONG <<SMG$$MASK_ADR-U.180>-4>
          :TPASMASK
          U.181: .LONG 440
FFFF 00126 :TPASTARGET
          U.182: .WORD -1
15F6 00128 :TPASTYPE
          U.183: .WORD 5622
FFFE 0012A :TPASTARGET
          U.184: .WORD -2
          0012C :EQUALS_NUMERIC
          U.27: .BLKB 0
99F8 0012C :TPASTYPE
          U.186: .WORD -26120
0000* 0012E :TPASSUBEXP
          U.187: .WORD <<U.3-U.187>-2>
00000000* 00130 :TPASACTION
          U.188: .LONG <<SMG$$NEXT_RECORD-U.188>-4>
0000* 00134 :TPASTARGET
          U.189: .WORD <<U.27-U.189>-2>
903D 00136 :TPASTYPE
          U.190: .WORD -28611
00000000* 00138 :TPASACTION
          U.191: .LONG <<SMG$$STORE_CAP_MASK-U.191>-4>
0000* 0013C :TPASTARGET
          U.193: .WORD <<U.192-U.193>-2>
81F1 0013E :TPASTYPE
          U.194: .WORD -32271
00000000* 00140 :TPASACTION
          U.195: .LONG <<SMG$$SYNTAX_ERROR-U.195>-4>
85ED 00144 :TPASTYPE
          U.196: .WORD -31251
00000000* 00146 :TPASACTION
          U.197: .LONG <<SMG$$SYNTAX_ERROR-U.197>-4>
          0014A :NUMERIC_CAP VALUE
          U.192: .BLKB 0
99F8 0014A :TPASTYPE
          U.198: .WORD -26120
0000* 0014C :TPASSUBEXP
          U.199: .WORD <<U.3-U.199>-2>
00000000* 0014E :TPASACTION
          U.200: .LONG <<SMG$$NEXT_RECORD-U.200>-4>
0000* 00152 :TPASTARGET
          U.201: .WORD <<U.192-U.201>-2>
19F8 00154 :TPASTYPE
          U.202: .WORD 6648
0000* 00156 :TPASSUBEXP
          U.204: .WORD <<U.203-U.204>-2>
0000* 00158 :TPASTARGET
          U.205: .WORD <<BEGIN_SCAN-U.205>-2>
81F1 0015A :TPASTYPE
          U.206: .WORD -32271
00000000* 0015C :TPASACTION
          U.207: .LONG <<SMG$$SYNTAX_ERROR-U.207>-4>
85ED 00160 :TPASTYPE
          U.208: .WORD -31251
00000000* 00162 :TPASACTION
          U.209: .LONG <<SMG$$SYNTAX_ERROR-U.209>-4>

```



```

00166 :NUMERIC_CAP
U.203: .BLKB 0
91EF 00166 :TPASTYPE
U.210: .WORD -28177
00000000* 00168 :TPASACTION
U.211: .LONG <<SMG$$$SAVE_TOKEN_STRING-U.211>-4>
0000* 0016C :TPASTARGET
U.212: .WORD <<U.203-U.212>-2>
99F8 0016E :TPASTYPE
U.213: .WORD -26120
0000* 00170 :TPASSUBEXP
U.215: .WORD <<U.214-U.215>-2>
00000000* 00172 :TPASACTION
U.216: .LONG <<CONVERT_NUMERIC-U.216>-4>
FFFF 00176 :TPASTARGET
U.217: .WORD -1
99F8 0017E :TPASTYPE
U.218: .WORD -26120
0000* 0017A :TPASSUBEXP
U.219: .WORD <<U.3-U.219>-2>
00000000* 0017C :TPASACTION
U.220: .LONG <<CONVERT_NUMERIC-U.220>-4>
0000* 00180 :TPASTARGET
U.222: .WORD <<U.221-U.222>-2>
85ED 00182 :TPASTYPE
U.223: .WORD -31251
00000000* 00184 :TPASACTION
U.224: .LONG <<SMG$$$SYNTAX_ERROR-U.224>-4>
00188 :COMMA
U.214: .BLKB 0
902C 00188 :TPASTYPE
U.225: .WORD -28628
00000000* 0018A :TPASACTION
U.226: .LONG <<SMG$$$BLANKS_OFF-U.226>-4>
FFFF 0018E :TPASTARGET
U.227: .WORD -1
91F2 00190 :TPASTYPE
U.228: .WORD -28174
00000000* 00192 :TPASACTION
U.229: .LONG <<SMG$$$BLANKS_OFF-U.229>-4>
0000* 00196 :TPASTARGET
U.230: .WORD <<U.214-U.230>-2>
15F6 00198 :TPASTYPE
U.231: .WORD 5622
FFFE 0019A :TPASTARGET
U.232: .WORD -2
0019C :NEW_RECORD
U.22T: .BLKB 0
95F6 0019C :TPASTYPE
U.233: .WORD -27146
00000000* 0019E :TPASACTION
U.234: .LONG <<SMG$$$NEXT_RECORD-U.234>-4>
FFFF 001A2 :TPASTARGET
U.235: .WORD -1

```

.PSECT \_LIB\$KEYOS, NOWRT, SHR, PIC, 1

```

00000 SMG$SA_NUMERIC_KEYWDS::
      BLKB 0
00000 :TPASKEY0
      U.1: .BLKB 0
0000* 00000 :TPASKEY
      U.30: .WORD <U.29-U.1> ;
0000* 00002 :TPASKEY
      U.35: .WORD <U.34-U.1> ;
0000* 00004 :TPASKEY
      U.40: .WORD <U.39-U.1> ;
0000* 00006 :TPASKEY
      U.45: .WORD <U.44-U.1> ;
0000* 00008 :TPASKEY
      U.50: .WORD <U.49-U.1> ;
0000* 0000A :TPASKEY
      U.56: .WORD <U.55-U.1> ;
0000* 0000C :TPASKEY
      U.65: .WORD <U.64-U.1> ;
0000* 0000E :TPASKEY
      U.72: .WORD <U.71-U.1> ;
0000* 00010 :TPASKEY
      U.79: .WORD <U.78-U.1> ;
0000* 00012 :TPASKEY
      U.86: .WORD <U.85-U.1> ;
0000* 00014 :TPASKEY
      U.93: .WORD <U.92-U.1> ;
0000* 00016 :TPASKEY
      U.100: .WORD <U.99-U.1> ;
0000* 00018 :TPASKEY
      U.107: .WORD <U.106-U.1> ;
0000* 0001A :TPASKEY
      U.114: .WORD <U.113-U.1> ;
0000* 0001C :TPASKEY
      U.121: .WORD <U.120-U.1> ;
0000* 0001E :TPASKEY
      U.128: .WORD <U.127-U.1> ;
0000* 00020 :TPASKEY
      U.135: .WORD <U.134-U.1> ;
0000* 00022 :TPASKEY
      U.142: .WORD <U.141-U.1> ;
0000* 00024 :TPASKEY
      U.149: .WORD <U.148-U.1> ;
0000* 00026 :TPASKEY
      U.156: .WORD <U.155-U.1> ;
0000* 00028 :TPASKEY
      U.163: .WORD <U.162-U.1> ;
0000* 0002A :TPASKEY
      U.170: .WORD <U.169-U.1> ;
0000* 0002C :TPASKEY
      U.177: .WORD <U.176-U.1> ;

```

```

.EXTRN OTSSCVT TI_L, SMG$BLANKS_OFF
.EXTRN SMG$FLOSH_NUMERIC
.EXTRN SMG$MISSING_END
.EXTRN SMG$NEXT_RECORD
.EXTRN SMG$SAVE_TOKEN_STRING
.EXTRN SMG$STORE_CAP_MASK

```

```
.EXTRN SMG$$$SYNTAX_ERROR
.EXTRN SMG$_ERRAT [IN, SMG$_MISTERNAM
.EXTRN SMG$_NOTNUMCAP, SMG$_SYNERR
.EXTRN SMG$$$MASK_ADR, SMG$$$CURRENT_LINE
```

.PSECT \_SMG\$CODE,NOWRT, SHR, PIC,2

0004 00000 CONVERT_NUMERIC:						
	52	00000000G	00 9E 00002	.WORD	Save R2	0313
	5E		08 C2 00009	MOVAB	LIB\$STOP, R2	
		54	AC D5 0000C	SUBL2	#8, SP	0358
		4E	13 0000F	TSTL	84(AP)	
		48	AC D5 00011	BEQL	3\$	0372
			09 12 00014	TSTL	72(AP)	
		00000000G	00 9F 00016	BNEQ	1\$	0374
	62		01 FB 0001C	PUSHAB	SMG\$ MISTERNAM	
02	AE	010E	0F B0 0001F	CALLS	#1, [IB\$STOP	0388
	6E	54	AC B0 00025	MOVW	#270, INPUT_STRING_DESC+2	0390
04	AE	58	AC B0 00029	MOVW	84(AP), INPUT_STRING_DESC	0391
		1C	AC 9F 0002E	MOVL	88(AP), INPUT_STRING_DESC+4	0393
		04	AE 9F 00031	PUSHAB	28(AP)	
00000000G	00		02 FB 00034	PUSHAB	INPUT_STRING_DESC	
	17		50 E8 0003B	CALLS	#2, OT\$SCVT_TI_L	
			50 DD 0003E	BLBS	STATUS, 2\$	0399
	7E	54	AC 7D 00040	PUSHL	STATUS	0397
		00000000G	00 DD 00044	MOVQ	84(AP), -(SP)	0396
			03 DD 0004A	PUSHL	SMG\$\$CURRENT_LINE	0395
		00000000G	00 9F 0004C	PUSHL	#3	
	62		06 FB 00052	PUSHAB	SMG\$ ERRAT LIN	
00000000G	00		6C FA 00055	CALLS	#6, [IB\$STOP	0401
		54	AC 7C 0005C	CALLG	(AP), SMG\$\$FLUSH_NUMERIC	0412
	50		01 D0 0005F	CLRQ	84(AP)	0415
			04 00062	MOVL	#1, R0	0417
				RET		

; Routine Size: 99 bytes, Routine Base: \_SMGSCODE + 0000



```

345 0418 1 ZSBTTL 'NOT_NUMERIC - signal an unknown capability name'
346 0419 1 ROUTINE NOT_NUMERIC =
347 0420 1
348 0421 1 ++
349 0422 1 FUNCTIONAL DESCRIPTION:
350 0423 1
351 0424 1     We just found an unknown capability name. It could be a misspelling
352 0425 1     or it could be a name misplaced under the wrong heading. Signal an
353 0426 1     error.
354 0427 1
355 0428 1 CALLING SEQUENCE:
356 0429 1
357 0430 1     status = NOT_NUMERIC ()
358 0431 1
359 0432 1 FORMAL PARAMETERS:
360 0433 1
361 0434 1     NONE
362 0435 1
363 0436 1 IMPLICIT INPUTS:
364 0437 1
365 0438 1     AP     Points to TPARSE parameter block
366 0439 1
367 0440 1 IMPLICIT OUTPUTS:
368 0441 1
369 0442 1     NONE
370 0443 1
371 0444 1 COMPLETION STATUS:
372 0445 1
373 0446 1     SS$_NORMAL
374 0447 1
375 0448 1 SIDE EFFECTS:
376 0449 1
377 0450 1 --
378 0451 1
379 0452 2 BEGIN
380 0453 2 BUILTIN
381 0454 2 AP;
382 0455 2 MAP
383 0456 2     AP : REF BLOCK [ ,BYTE];
384 0457 2
385 0458 2 SIGNAL_STOP (SMG$ ERRAT LIN,
386 0459 2     3, .SMG$$CURRENT_LINE,
387 0460 2     .AP [TPASL_TOKENCNT],
388 0461 2     .AP [TPASL_TOKENPTR],
389 0462 2     SMG$_NOTNUMCAP)
390 0463 2
391 0464 1 END;                                ! end of routine NOT_NUMERIC

```

				0000 00000	NOT_NUMERIC:		
						.WORD	Save nothing
						PUSHAB	SMG\$ NOTNUMCAP
7E	00000000G	00	9F	00002		MOVQ	16(AP), -(SP)
	10	AC	7D	00008		PUSHL	SMG\$\$CURRENT_LINE
	00000000G	00	DD	0000C			

0419

0458

0460

0459

SMG\$NUMERIC_TAB	TPARSE tables for numeric capabilities	K 10	16-Sep-1984 01:08:25	VAX-11 Bliss-32 V4.0-742	Page 20
1-003	NOT_NUMERIC - signal an unknown capability name	14-Sep-1984 13:09:57	[SMGRTL.SRC]SMGNUMTAB.B32;1	(5)	

  

00000000G	00	00000000G	03 DD 00012	PUSHL	#3		: 0458
			00 9F 00014	PUSHAB	SMG\$	ERRAT LIN	:
			06 FB 0001A	CALLS	#6,	LIB\$STOP	:
			04 00021	RET			: 0464

  

: Routine Size: 34 bytes,      Routine Base: \_SMG\$CODE + 0063

  

: 392                    0465 1 !<BLF/PAGE>

: 394 0466 1 END  
 : 395 0467 1  
 : 396 0468 0 ELUDOM

! End of module SMG\$TPARSE\_TABLES

.EXTRN LIB\$STOP

PSECT SUMMARY

Name	Bytes	Attributes
_LIB\$KEY0\$	46	NOVEC,NOWRT, RD, EXE, SHR, LCL, REL, CON, PIC,ALIGN(1)
_LIB\$STATES	420	NOVEC,NOWRT, RD, EXE, SHR, LCL, REL, CON, PIC,ALIGN(1)
_LIB\$KEY1\$	253	NOVEC,NOWRT, RD, EXE, SHR, LCL, REL, CON, PIC,ALIGN(1)
_SMG\$CODE	133	NOVEC,NOWRT, RD, EXE, SHR, LCL, REL, CON, PIC,ALIGN(2)

Library Statistics

File	Total	Symbols Loaded	Percent	Pages Mapped	Processing Time
_\$255\$DUA28:[SYSLIB]STARLET.L32;1	9776	30	0	581	00:00.9
_\$255\$DUA28:[SMGRTL.OBJ]RTLLIB.L32;1	36	0	0	8	00:00.1
_\$255\$DUA28:[SMGRTL.OBJ]SMGLIB.L32;1	469	0	0	38	00:00.4
_\$255\$DUA28:[SMGRTL.OBJ]SMGTPALIB.L32;1	41	3	7	10	00:00.1
_\$255\$DUA28:[SYSLIB]TPAMAC.L32;1	42	30	71	14	00:00.1

COMMAND QUALIFIERS

BLISS/CHECK=(FIELD,INITIAL,OPTIMIZE)/NOTRACE/LIS=LISS:SMGNUMTAB/OBJ=OBJ\$:SMGNUMTAB MSRC\$:SMGNUMTAB/UPDATE=(ENH\$:SMGNUMTAB)

: Size: 133 code + 719 data bytes  
 : Run Time: 00:29.1  
 : Elapsed Time: 01:17.9  
 : Lines/CPU Min: 965  
 : Lexemes/CPU-Min: 92540  
 : Memory Used: 178 pages  
 : Compilation Complete



0360 AH-BT13A-SE  
VAX/VMS V4.0

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